COMPOSITION AND CERTAIN PROPERTIES OF GOAT'S MILK FROM SMALL FARMS IN SOUTH HUNGARY

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Abstract

The most of milk products processed from cow's milk in Hungary, but the interest for goat milk products shows an increasing trend in Hungary. The background of goat breeding is well-known, but more and more data are needed for the successful breeding. Only a few bigger goat farm exist in Hungary, so there are many farmers made milk products at their own farm. Small goat farms can be characterized with extensive breeding, resulting low daily milk yield, which hampers the development of goat breeding and higher income. That's why the investigation of milking goat breeding is essential nowadays.

Pointing to this situation, we evaluated the data of goat's milk samples from a Hungarian White goat flock and a crossbred Hungarian native (mixed) goat flocks bred with extensive condition.

The trend of changes in the amount and the composition of goat's milk during lactation partly met the expectations. The lactation mean of fat-, protein content and fat/protein ratio of Hungarian White goat's milk were 4.09%, 3.82% and 1.11, while in milk from mixed flock 5.04%, 3.41% and 1.41. Surprisingly, comparing own data to milking goats' data in literature, we determined low level of lactation milk yields per capita in both of flocks, 254.4 litres and 317.3 litres in case of Hungarian White and of mixed flock. This may be caused by the lacks of feeding, weather conditions and the different milking frequency. Smaller fluctuation was explored in the purchased milk data from dairy plant. Nevertheless, fat content of cow's milk was the highest, 4.35% in February, while protein content in December, 3.56% and the values of total solids followed the usual trend. However, we measured higher lactose values as usual. The average of density, viscosity (at 15°C) and freezing point of all milk samples were 1.0287 g/cm^3, 2.804 mPas and -0.5509 °C.

Key words: goat's milk composition, density, freezing point, viscosity.